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EXAMINER

KANERVO, VIRPI H

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/601,199	<b>Applicant(s)</b> ERIKSSON, JOHAN	
	<b>Examiner</b> VIRPI H. KANERVO	<b>Art Unit</b> 3691	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-6,8 and 10-14 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,8 and 10-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Status of the Claims***

1. Claims 1, 3-6, 8, and 10-14, are presented for examination. Applicant filed an amendment on 06/26/2008 cancelling claims 2, 7, and 9; and amending claims 1, 3-5, 8, and 10-14. In light of Applicant's amendments and arguments, Examiner withdraws the rejection of claims 1, 3-6, 8, and 10-14. However, new grounds of rejection are established in the instant Office action for claims 1, 3-6, 8, and 10-14.

### ***Response to Arguments***

2. In light of Applicant's arguments and amendments, Examiner withdraws the rejection of claims 1, 3-6, 8, and 10-14. However, new grounds of rejection are established for claims 1, 3-6, 8, and 10-14.
3. Examiner has considered Applicant's argument with respect to Lea (2005/0209940 A1) reference, but finds it not persuasive. Applicant argues specifically that Examiner is using "Lea in an improper hindsight attempt to reconstruct the template features claimed." However, Applicant does not explain

how the use of Lea reference is improper hindsight. Examiner used, and will continue to use in the instant Office action, Lea reference to describe templates for financial instruments. Lea describes such structure in page 2, ¶ 21 (“template representation from a store of such representations of financial instruments”). Therefore, Lea specifically describes templates for financial instruments.

4. Examiner has considered Applicant’s argument with respect to Althoff (6,366,922 B1) reference, but finds it not persuasive. Applicant disagrees with Examiner on “that Althoff describes a hierarchic multi-level structure for instruments.” Applicant argues specifically that “Althoff is not even directed to the financial area. As a result, Althoff fails to describe attributes related to financial instruments and templates for financial instruments.” Examiner agrees with Applicant that Althoff is “not even directed to the financial area.” However, Examiner never argued that Althoff was directed to the financial area. Applicant’s claims prior to Applicant’s amendments did not include limitation “attributes related to financial instruments and templates for financial instruments,” but instead had a limitation of “instruments are given attributes.” Therefore, it was not necessary for the Althoff to be “directed to the financial area” in order for Althoff to describe “a hierarchic multi-level structure for instruments.” Examiner used, and will continue to use in the instant Office action, Althoff reference to describe a hierarchic multi-level structure including attributes that are common in various levels of hierarchy. Althoff describes such structure in col. 2, lines 57-61 (where the data “is linked to

the top level of each class that corresponds to a different dimension of data” and where “all subclasses which exist within a given dimensional class automatically inherit the linked reference to the consolidated data”). Therefore, Althoff specifically describes a hierarchic multi-level structure including attributes that are common in various levels of hierarchy.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1, 8, and 10-11, are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant amended claims 1, 8, and 10-11, with a limitation “instruments and/or templates.” However, it is unclear whether this means “instruments and templates” or “instruments or templates.” Examiner will interpret this limitation to mean “instruments or templates” for the purpose of the further examination of the application.

***Claim Rejections - 35 USC § 101***

7. 35 U.S.C. § 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1, 3-6, 8, and 10-14, are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

As to claims 1 and 3-6: Claim 1 is independent claim, and it is directed to “a computerized Centralized Securities Depository (CSD)-system.” However, there is no hardware in the body of the claim, but only software. Software has no structure, *i.e.*, software alone is *per se* non-statutory subject matter. Claims 3-6 depend from claim 1. None of the dependent claims 3-6 correct the non-statutory subject matter in claim 1. Therefore, claims 3-6 are also rejected for being directed to non-statutory subject matter.

As to claims 8 and 10-14: Claim 8 is independent claim, and it is directed to method that is not linked to another statutory class, *i.e.*, it is directed to non-statutory subject matter. Therefore, claim 8 is rejected as directed to non-statutory subject matter. Claims 10-14 depend from claim 8. None of the dependent claims 10-14 correct the non-statutory subject matter in claim 8.

Therefore, claims 10-14 are also rejected for being directed to non-statutory subject matter.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in § 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 3-4, and 6, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lea (2005/0209940 A1) in view of Althoff (6,366,922 B1).

As to claim 1, Lea shows a register of a plurality of financial instruments and/or templates for financial instruments, each of which is defined by attributes (Lea: page 2, ¶ 21).

Lea does not show the financial instruments and/or templates for financial instruments, being configured together in a hierarchic multi-level structure based on the attributes such that a financial instrument and/or template for financial instrument on a first level in the hierarchy is defined by at least one of the attributes which are common for financial instruments and/or templates for financial instruments on a second level, wherein each financial instrument and/or

template for financial instrument is only linked to one financial instrument and/or template for financial instrument on a level above it. Althoff shows the financial instruments and/or templates for financial instruments, being configured together in a hierarchic multi-level structure based on the attributes such that a financial instrument and/or template for financial instrument on a first level in the hierarchy is defined by at least one of the attributes which are common for financial instruments and/or templates for financial instruments on a second level (Althoff: col. 2, lines 57-61), wherein each financial instrument and/or template for financial instrument is only linked to one financial instrument and/or template for financial instrument on a level above it (Althoff: Fig. 1, label 16). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the system of Lea by the financial instruments and/or templates for financial instruments, being configured together in a hierarchic multi-level structure based on the attributes such that a financial instrument and/or template for financial instrument on a first level in the hierarchy is defined by at least one of the attributes which are common for financial instruments and/or templates for financial instruments on a second level, wherein each financial instrument and/or template for financial instrument is only linked to one financial instrument and/or template for financial instrument on a level above it of Althoff in order to provide a object/rational database management system in which multidimensional searches can be easily constructed by the user in a dynamic manner (Althoff: col. 2, lines 33-47).



As to claim 3, Lea in view of Althoff shows all the elements of claim 1. Lea does not show that an amendment to an attribute in financial instrument will cause the same amendment in the same attribute of those financial instruments which are linked to the amended financial instruments and which are on lower levels in the hierarchy than the amended financial instrument. Althoff shows that an amendment to an attribute in financial instrument will cause the same amendment in the same attribute of those financial instruments which are linked to the amended financial instruments and which are on lower levels in the hierarchy than the amended financial instrument (Althoff: col. 2, lines 59-61). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the system of Lea by an amendment to an attribute in financial instrument causing the same amendment in the same attribute of those financial instruments which are linked to the amended financial instruments and which are on lower levels in the hierarchy than the amended financial instrument of Althoff in order to provide a object/rational database management system in which multidimensional searches can be easily constructed by the user in a dynamic manner (Althoff: col. 2, lines 33-47).

As to claim 4, Lea in view of Althoff shows all the elements of claim 1. Lea shows also that the financial instruments on at least said first level of the hierarchy are financial instrument templates (Lea: page 2, ¶ 21).

As to claim 6, Lea in view of Althoff shows all the elements of claim 4. Lea does not show that templates in the hierarchy are only allowed one link to a level above their own, but more than one link to levels below their own. Althoff shows that templates in the hierarchy are only allowed one link to a level above their own, but more than one link to levels below their own (Althoff: Fig. 1, label 16). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the system of Lea by templates in the hierarchy only allowed to have one link to a level above their own, but more than one link to levels below their own of Althoff in order to provide a object/rational database management system in which multidimensional searches can be easily constructed by the user in a dynamic manner (Althoff: col. 2, lines 33-47).

11. Claims 5, 8, and 10-14, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lea in view of Althoff, and further in view of INDEVAL (*Disclosure Framework For Securities Settlement System*; October 3, 2000).

As to claim 5, Lea in view of Althoff shows all the elements of claim 1. Lea in view of Althoff does not show that the financial instruments used from said second level and downwards in the hierarchy are financial instruments which can be traded within the CSD system. INDEVAL shows that the financial instruments used from said second level and downwards in the hierarchy are financial

instruments which can be traded within the CSD system (INDEVAL: page 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the system of Lea in view of Althoff by the financial instruments used from said second level and downwards in the hierarchy being financial instruments which can be traded within the CSD system of INDEVAL for the purpose of using custodial and related services provided by the CSD system (INDEVAL: pages 2-3).

As to claim 8, Lea shows defining each of the financial instruments and/or templates for financial instruments by attributes (Lea: page 2, ¶ 21).

Lea does not show configuring the financial instruments and/or templates for financial instruments together in a hierarchic multi-level structure based on the attributes, defining a financial instrument and/or template for financial instrument on a first level in the hierarchy by at least one of the attributes which are common for financial instruments and/or templates for financial instruments on a second level, and linking each financial instrument and/or template for financial instrument to only one financial instrument and/or template for financial instrument on a hierarchic level above that financial instrument and/or template for financial instrument. Althoff shows configuring the financial instruments and/or templates for financial instruments together in a hierarchic multi-level structure based on the attributes (Althoff: col. 2, lines 57-61), defining a financial instrument and/or template for financial instrument on a first level in the hierarchy

by at least one of the attributes which are common for financial instruments and/or templates for financial instruments on a second level (Althoff: col. 2, lines 59-61), and linking each financial instrument and/or template for financial instrument to only one financial instrument and/or template for financial instrument on a hierarchic level above that financial instrument and/or template for financial instrument (Althoff: Fig. 1, label 16). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Lea by configuring the financial instruments and/or templates for financial instruments together in a hierarchic multi-level structure based on the attributes, defining a financial instrument and/or template for financial instrument on a first level in the hierarchy by at least one of the attributes which are common for financial instruments and/or templates for financial instruments on a second level, and linking each financial instrument and/or template for financial instrument to only one financial instrument and/or template for financial instrument on a hierarchic level above that financial instrument and/or template for financial instrument of Althoff in order to provide a object/rational database management system in which multidimensional searches can be easily constructed by the user in a dynamic manner (Althoff: col. 2, lines 33-47).

Lea in view of Althoff does not show providing financial instruments and/or templates for financial instruments for safekeeping in a Centralized Securities Depository (CSD)-system. INDEVAL shows providing financial instruments and/or templates for financial instruments for safekeeping in a Centralized

Securities Depository (CSD)-system (INDEVAL: page 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Lea in view of Althoff by providing financial instruments and/or templates for financial instruments for safekeeping in a Centralized Securities Depository (CSD)-system of INDEVAL for the purpose of using custodial and related services provided by the CSD system (INDEVAL: pages 2-3).

As to claim 10, Lea in view of Althoff, and further in view of INDEVAL, shows all the elements of claim 8. Lea in view of INDEVAL does not show that any amendment to an attribute in a financial instrument and/or template for financial instrument causes the same amendment in the same attribute of those financial instruments and/or template for financial instruments which are linked to the amended financial instrument and/or template for financial instrument and which are on lower levels in the hierarchy than the amended financial instrument and/or template for financial instrument. Althoff shows that any amendment to an attribute in a financial instrument and/or template for financial instrument causes the same amendment in the same attribute of those financial instruments and/or template for financial instruments which are linked to the amended financial instrument and/or template for financial instrument and which are on lower levels in the hierarchy than the amended financial instrument and/or template for financial instrument (Althoff: col. 2, lines 59-61). It would have been obvious to

one of ordinary skill in the art at the time of the invention to have modified the method of Lea in view of INDEVAL by any amendment to an attribute in a financial instrument and/or template for financial instrument causing the same amendment in the same attribute of those financial instruments and/or template for financial instruments which are linked to the amended financial instrument and/or template for financial instrument and which are on lower levels in the hierarchy than the amended financial instrument and/or template for financial instrument of Althoff in order to provide a object/rational database management system in which multidimensional searches can be easily constructed by the user in a dynamic manner (Althoff: col. 2, lines 33-47).

As to claim 11, Lea in view of Althoff, and further in view of INDEVAL, shows all the elements of claim 8. Lea shows also that the financial instruments and/or template for financial instruments placed on at least said first level of the hierarchy are templates for a financial instrument (Lea: page 2, ¶ 21).

As to claim 12, Lea in view of Althoff, and further in view of INDEVAL, shows all the elements of claim 8. Lea in view of Althoff does not show that the financial instruments used from said second level and downwards in the hierarchy are financial instruments which can be traded within the CSD system. INDEVAL shows that the financial instruments used from said second level and downwards in the hierarchy are financial instruments which can be traded within the CSD

system (INDEVAL: page 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Lea in view of Althoff by the financial instruments used from said second level and downwards in the hierarchy being financial instruments which can be traded within the CSD system of INDEVAL for the purpose of using custodial and related services provided by the CSD system (INDEVAL: pages 2-3).

As to claim 13, Lea in view of Althoff, and further in view of INDEVAL, shows all the elements of claim 11. Lea in view of INDEVAL does not show that templates in the hierarchy only given one link to a level above their own can have more than one link to levels below their own. Althoff shows that templates in the hierarchy only given one link to a level above their own can have more than one link to levels below their own (Althoff: Fig. 1, label 16). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Lea in view of INDEVAL by templates in the hierarchy only given one link to a level above their own being able to have more than one link to levels below their own of Althoff in order to provide a object/rational database management system in which multidimensional searches can be easily constructed by the user in a dynamic manner (Althoff: col. 2, lines 33-47).

As to claim 14, Lea in view of Althoff, and further in view of INDEVAL, shows all the elements of claim 8. Lea in view of INDEVAL does not show that a financial

instrument is added to the CSD-system using the steps of finding an existing financial instrument in the CSD-system which has all of the attributes of the financial instrument which is to be added, placing the financial instrument which is to be added on a level in the hierarchy which is below said existing financial instrument, and creating a link between the financial instrument to be added and the existing financial instrument. Althoff shows that a financial instrument is added to the CSD-system using the steps of finding an existing financial instrument in the CSD-system which has all of the attributes of the financial instrument which is to be added, placing the financial instrument which is to be added on a level in the hierarchy which is below said existing financial instrument (Althoff: col. 4, lines 4-7), and creating a link between the financial instrument to be added and the existing financial instrument (Althoff: col. 2, lines 57-61; and Fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Lea in view of INDEVAL by a financial instrument being added to the CSD-system using the steps of finding an existing financial instrument in the CSD-system which has all of the attributes of the financial instrument which is to be added, placing the financial instrument which is to be added on a level in the hierarchy which is below said existing financial instrument, and creating a link between the financial instrument to be added and the existing financial instrument of Althoff in order to provide a object/rational database management system in which multidimensional



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searches can be easily constructed by the user in a dynamic manner (Althoff: col. 2, lines 33-47).

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Johnson (2003/0110112 A1) discloses methods and systems for automated inferred valuation of credit scoring.

Keyes (2001/0044766 A1) discloses methods and systems for modeling using classification and regression trees.

Toffey (2004/0236668 A1) discloses method and system for effecting straight-through-processing of trades of various financial instruments.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VIRPI H. KANERVO whose telephone number is (571)272-9818. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander G. Kalinowski can be

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reached on (571) 272-6771. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Virpi H. Kanervo

/Alexander Kalinowski/  
Supervisory Patent Examiner, Art Unit 3691